

REMARKS

By this Amendment claims 1-3, 5-12, 14-16, 18, 19, 21, 23, 25 and 26 have been revised to address the examiner's outstanding rejection under 35 U.S.C. §112, claim 22 has been canceled, and new claims 27 and 28 have been added to define a further step to claims 1 and 21, respectively. Entry is requested.

In the outstanding Office Action the examiner has rejected claims 1-26 under 35 U.S.C. §102(b) or §103 as being either anticipated by, or unpatentable over Loewy et al. This rejection must be withdrawn.

Loewy et al. disclose a combined process for the manufacture of feed grade dicalcium phosphate and pure phosphoric acid. Step a) of the method is a reaction of an excess phosphate rock with diluted acid, for example hydrochloric acid. As indicated on column 2, last line to column 3, line 2, the reaction system implies an excess of phosphate rock in which almost the entire P₂O₅ content is solubilized in step (d). In column 3, lines 4-18, it is clearly indicated that in step a) only a part of the phosphate rock is attacked. The use of an excess of phosphate rock will cause an upgrade of the P₂O₅ content of the unattacked phosphate rock. And in step d) the unattacked phosphate rock which remains from step a) will be more concentrated in P₂O₅ (see also column 4, lines 34 to 37; column 7, lines 60 to 63 and 65 to 66, a.s.o). According to this process, during the attack most of the calcium carbonate present in the phosphate

rock is more easily attacked and solubilized (see column 3, lines 12 to 14 and lines 53 to 57). The consequence thereof is the above mentioned P_2O_5 enrichment in the phosphate rock. After the separation of step b), the enriched phosphate rock is submitted to a second hydrochloric acid attack (step d). In fact, as it results from column 6, lines 16 to 18, the total P_2O_5 solubilization yield is very high since the attack on the phosphate rock is carried out in two separate steps. In combination with this step d), in the clear solution separated from step a) DCP is precipitated. In steps e) to h), the product of solubilization issued from the second attack of the enriched phosphate rock (step d) is submitted to an extraction in order to obtain pure phosphoric acid.

In contrast, the method according to claim 1 of the present invention is a method of manufacture of phosphoric acid only.

The method according to Loewy et al. does not comprise, as in claim 1 of the present invention, any attack with a yield of attack greater than 80% by weight, expressed as P_2O_5 . On the contrary, in claim 1, wherein the separated insoluble solid phase issued from the first separation contains impurities (and is to be eliminated), the separated solid phase is an "enriched phosphate rock".

Moreover, in Loewy et al. there is no solubilisation by HCl of at least a part of the precipitated solid phase separated from a second separation. On the contrary, the second HCl attack in this patent takes place on the

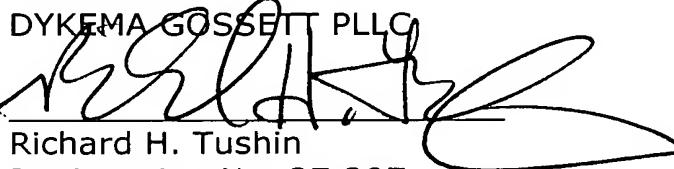
enriched phosphate rock which is issued from the first separation of step a).

Finally, in Loewy et al. the extraction takes place on an acidulant solution separated in step e) (second separation). This second separation separates a liquid phase issued from the second HCl attack of the phosphate rock. On the other hand, in applicant's claim 1, the extraction takes place on a solubilisation product of a separated solid phase which was precipitated during the neutralization of the aqueous phase issued from the first separation. In Loewy et al. the separated precipitated DCP issued from a neutralization of the aqueous phase coming from the separation of step b) is a final product of the process, and consequently is certainly not to be solubilized.

The applicant asserts that Loewy et al. do not disclose or suggest the method as defined in amended claim 1. As such, the rejection based on Loewy et al. should be withdrawn.

The Commissioner is authorized to charge additional claim fees to Deposit Account No. 04-2223.

Respectfully submitted,

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